

CHAPTER 3.1.5.

INFECTION WITH MARTEILIA REFRINGENS

Article 3.1.5.1.

The disease agent is *Marteilia refringens*.

Article 3.1.5.2.

Naturally susceptible species in which clinical signs of infection with *Marteilia refringens* are known to develop are: European flat oyster (*Ostrea edulis*), Australian mud oyster (*Ostrea angasi*), Argentinean oyster (*Ostrea puelchana*) and Chilean flat oyster (*Ostrea chilensis*).

Article 3.1.5.3.

Marteilia refringens can also cause asymptomatic infection in the susceptible species listed in Article 3.1.5.2.

Article 3.1.5.4.

Infections with *Marteilia* spp. of unclear taxonomic affiliation have also been described in the following species: common edible cockle (*Cerastoderma [Cardium] edule*), blue mussel (*Mytilus edulis*), Mediterranean mussel (*Mytilus galloprovincialis*), giant clam (*Tridacna maxima*) and calico scallop (*Argopecten gibbus*).

Article 3.1.5.5.

Suspect cases of natural infection with *Marteilia refringens* in species other than those listed in Articles 3.1.5.2 and 3.1.5.3, should be referred immediately to the appropriate OIE Reference Laboratory, whether or not clinical signs are associated with the findings.

Article 3.1.5.6.

Methods for surveillance, diagnosis and confirmatory identification of *Marteilia refringens* are provided in the *Aquatic Manual*.

***Marteilia refringens* free country**

Article 3.1.5.7.

A country may be recognised as free of *Marteilia refringens* if it meets the conditions in Articles 3.1.5.8 or 3.1.5.9.

If a country shares water bodies of coastal areas with one or more other countries, it can only be declared a *Marteilia refringens* free country if all the shared coastal areas are declared free zones (see Article 3.1.5.10).

Article 3.1.5.8.

A country where none of the susceptible species listed in Article 3.1.5.2 is present

OR

where there has never been any observed occurrence of infection with *Marteilia refringens* despite conditions that are conducive to its clinical expression

may be considered free from infection with *Marteilia refringens* when prescribed biosecurity conditions have been in place continuously in the country for at least the previous 2 years as follows:

- a) infection with *Marteilia refringens* is compulsorily notifiable to the *Competent Authority*, including notification of suspicion; and
- b) an early detection system is in place within the country enabling the *Competent Authority* to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant infections, and training of veterinarians or mollusc health specialists in detecting and reporting unusual infection occurrence; and
- c) infection is not known to be established in wild populations; and
- d) conditions applied to imports to prevent the introduction of *Marteilia refringens* (e.g. live molluscs introduced for aquaculture purposes or for human consumption) into the country are in place (see Section 1.4).

Article 3.1.5.9.

A country where the last known occurrence was within the previous 25 years or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression of the infection, may be considered free from infection with *Marteilia refringens* when it meets the prescribed biosecurity conditions detailed in Article 3.1.5.8.

AND

targeted surveillance as described in chapters 1.4 and 3.1.5 in the *Aquatic Manual* has been in place for at least the past 2 years for susceptible species listed in Article 3.1.5.2 in aquaculture establishments or wild populations without detection of *Marteilia refringens*.

***Marteilia refringens* free zone**

Article 3.1.5.10.

A zone free of infection with *Marteilia refringens* may be established within the territory of one or more countries of infected or unknown status if the zone meets the conditions referred to in Articles 3.1.5.11 or 3.1.5.12.

Such *Marteilia refringens* free zones must comprise: one or more entire water body of coastal area(s) defined on the basis of the distribution of the susceptible species listed in Article 3.1.5.2, geographical and hydrographical criteria. Such zones must be clearly delineated on a map of the territory of the country(ies) concerned by the *Competent Authority*.

If a zone extends over more than one country, it can only be declared a *Marteilia refringens* free zone if the conditions outlined below apply to all shared areas of the zone.

Article 3.1.5.11.

A zone where none of the susceptible species listed in Article 3.1.5.2 is present

OR

where there has never been any observed occurrence of infection with *Marteilia refringens* despite conditions that are conducive to its clinical expression

may be considered free from infection with *Marteilia refringens* when prescribed biosecurity conditions have been in place continuously in the zone for at least the previous 2 years as follows:

- a) infection with *Marteilia refringens* is compulsorily notifiable to the Competent Authority, including notification of suspicion; and
- b) an early detection system is in place within the zone enabling the Competent Authority to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant infections, and veterinarians or molluscs health specialists are trained in detecting and reporting unusual disease occurrence; and
- c) infection is not known to be established in wild populations; and
- d) official control measures to prevent the introduction of *Marteilia refringens* (e.g. live molluscs introduced for aquaculture purposes or for human consumption) into the zone are in place.

Article 3.1.5.12.

A zone where the last known occurrence was within the previous 25 years or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression of the infection, may be considered free from infection with *Marteilia refringens* when it meets the prescribed biosecurity conditions detailed in Article 3.1.5.11.

AND

targeted surveillance as described in chapters 1.4 and 3.1.5 in the Aquatic Manual has been in place for at least the past 2 years for the susceptible species listed in Article 3.1.5.2 in aquaculture establishments or wild populations without detection of *Marteilia refringens*.

***Marteilia refringens* free aquaculture establishment**

Article 3.1.5.13.

An aquaculture establishment free of infection with *Marteilia refringens* may be located within an *Marteilia refringens* infected country or zone or within a country or zone of unknown status with respect to *Marteilia refringens* if it meets the conditions referred to in Articles 3.1.5.14 or 3.1.5.15.

Such aquaculture establishments free of infection with *Marteilia refringens* must be supplied by a contained water source (e.g. a well, borehole, closed recirculation system, etc.) in which the culture system water cannot be contaminated by the disease agent and be inaccessible to susceptible species or potential carriers from the natural environment.

Article 3.1.5.14.

An aquaculture establishment where none of the susceptible species listed in Article 3.1.5.2 is present

OR

where there has never been any observed occurrence of infection with *Marteilia refringens* despite conditions that are conducive to its clinical expression

may be considered free from infection with *Marteilia refringens* when prescribed biosecurity conditions have been in place continuously in the aquaculture establishment for at least the previous 2 years as follows:

- a) infection with *Marteilia refringens* is compulsorily notifiable to the Competent Authority, including notification of suspicion; and
- b) the aquaculture establishment complies with an early detection system enabling the Competent Authority to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant infections, and the staff are trained in detecting and reporting unusual disease occurrence; and
- c) infection is not known to be established in wild populations; and
- d) official control measures to prevent the introduction of *Marteilia refringens* into the zone are in place.

Article 3.1.5.15.

An aquaculture establishment where the last known occurrence of infection with *Marteilia refringens* was within the previous 25 years, or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression, may be considered free from infection with *Marteilia refringens* when it meets the prescribed biosecurity conditions detailed in Article 3.1.5.14.

AND

targeted surveillance as described in chapters 1.4 and 3.1.5 in the Aquatic Manual has been in place for at least the past 2 years without detection of the disease agent in Article 3.1.5.1.

Article 3.1.5.16.

Maintenance of free status

A country, zone or aquaculture establishment that is recognised as free from infection with *Marteilia refringens* following the provisions of Articles 3.1.5.8, 3.1.5.11 and 3.1.5.14 may maintain its official status as free of infection with *Marteilia refringens* provided that the prescribed biosecurity conditions are continuously maintained.

A country, zone or aquaculture establishment that is recognised free from infection with *Marteilia refringens* following the provisions of Articles 3.1.5.9, 3.1.5.12 and 3.1.5.15 may maintain its official status as free of infection with *Marteilia refringens* provided that targeted surveillance is continued at a level commensurate with the degree of risk assessed by the Competent Authority.

Article 3.1.5.17.

Suspension and restoration of free status

If a *Competent Authority* has reason to believe that any of the conditions for recognition of country, zone or aquaculture establishment freedom has been breached, it should immediately suspend the free status, implement any necessary containment measures and conduct an investigation.

If the investigation confirms that the suspected breach has not taken place, free status may be restored.

If the investigation confirms that the suspected breach has taken place, suspension of free status is continued. The *Competent Authority* should carry out an epizootiological investigation to determine the likelihood of *Marteilia refringens* entry and establishment and re-establish the conditions in Articles 3.1.5.7, 3.1.5.9, 3.1.5.10, 3.1.5.12, 3.1.5.13 and 3.1.5.15 if *Marteilia refringens* free status is to be restored.

Article 3.1.5.18.

When importing live molluscs of any age group for re-immersion, the *Competent Authority* of the importing country should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the exporting country or a *certifying official* approved by the importing country.

This *certificate* must certify, on the basis of a surveillance scheme conducted according to the procedures described above and detailed in the *Aquatic Manual*, whether or not the place of production of the consignment is a country, zone or aquaculture establishment officially declared free of infection with *Marteilia refringens*.

The certificate shall be in accordance with Model Certificate No. 3 given in Part 6 of this *Aquatic Code*.

Article 3.1.5.19.

If the *Competent Authority* of the exporting country cannot certify the place of production of the consignment as being free from infection with *Marteilia refringens*, the importing country should assess the risks associated with the importation prior to a decision on whether to authorise an importation.

Article 3.1.5.20.

When importing molluscs of commercial size destined for human consumption, the *Competent Authority* of the importing country should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the exporting country or a *certifying official* approved by the importing country.

This *certificate* must certify, on the basis of a surveillance scheme conducted according to the procedures described above and detailed in the *Aquatic Manual*, whether or not the place of production of the consignment is a country, zone or aquaculture establishment officially declared *Marteilia refringens* free.

The certificate shall be in accordance with Model Certificate No. 3 given in Part 6 of this *Aquatic Code*.

Article 3.1.5.21.

If the *Competent Authority* of the *exporting country* cannot certify the place of production of the consignment as being free from infection with *Marteilia refringens*, the importing country should assess the *risks* associated with the importation of molluscs of commercial size destined for human consumption prior to a decision on whether to authorise an importation.

Rather than refusing such imports, the *importing country* may opt to manage these *risks*, if the consignment is destined:

1. directly for human consumption without any re-immersion, or
2. for storage, during a short period before consumption, in tanks or holding facilities that ensure isolation from the local environment and avoid the potential introduction of *Marteilia refringens*.

Article 3.1.5.22.

The *Competent Authorities* of *exporting countries* should not authorise the exportation of live *molluscs* from populations known to be infected with *Marteilia refringens* without the full agreement of the *importing country*.